Exploration and Mining Geology

Contents and Author Index
Volume 1, 1992

PERGAMON PRESS

New York • Oxford • Seoul • Tokyo

EXPLORATION AND MINING GEOLOGY

Editors: J.F. DAVIES, H.L. GIBSON, R.E.S. WHITEHEAD
Laurentian University, Sudbury, Ontario, Canada

Consulting Editor: J.L. JAMBOR
CANMET, Ottawa, Ontario, Canada

Associate Editors

D.R. Boyle, Ottawa, Ontario
A.C. Brown, Montreal, Quebec
K.F. Clark, El Paso, Texas, U.S.A.
A.J. Fyon, Sudbury, Ontario
G.J.S. Govett, Kensington, NSW, Australia
C.M. Healey, Saskatoon, Saskatchewan
S.J. Juras, Campbell River, British Columbia
D.S. McCutcheon, Bathurst, New Brunswick
R.L. Morton, Duluth, Minnesota, U.S.A.
N.R. Paterson, Toronto, Ontario
W. Peredery, Copper Cliff, Ontario
G. Riverin, Rouyn-Noranda, Quebec
L.J. Robb, Johannesburg, South Africa
D.F. Sangster, Ottawa, Ontario
P.W. Severin, Falconbridge, Ontario
G.J. Thurlow, Corner Brook, Newfoundland
J. Thompson, Vancouver, British Columbia

Exploration and Mining Geology is published quarterly by the Geological Society of the Canadian Institute of Mining, Metallurgy and Petroleum.

Copyright © 1992, Canadian Institute of Mining, Metallurgy and Petroleum

Manuscripts should be submitted to the Editor, Exploration and Mining Geology, c/o CIMMER, Laurentian University, Ramsey Lake Road, Sudbury, Ontario, Canada P3E 2C6

Guide for Authors will appear in each issue.

Publishing, Subscription and Advertising Offices:
Pergamon Press Inc., 660 White Plains Road, Tarrytown, NY 10591-5153, U.S.A.
Pergamon Press Ltd., Headington Hill Hall, Oxford, OX3 0BW, U.K.

Published Quarterly. Annual Institutional Subscription Rate (1993): US $160.00 (£84.00). Personal Subscription Rate for those whose library subscribes at the regular rate: US $48.00 (£25.00). For CIM membership rate, please contact the CIM Secretariat. U.S. dollar price is definitive. Sterling prices are quoted for convenience only, and are subject to exchange rate fluctuation. Prices include postage and insurance and are subject to change without notice.

Explor. Mining Geol., Vol. 1, No. 4, pp. III-VII, 1992
Printed in the U.S.A.

0964-1823/92 $5.00 + .00
© 1992 Canadian Institute of Mining, Metallurgy and Petroleum
Pergamon Press Ltd.

Exploration and Mining Geology

Volume 1, No. 1, January 1992

Contents

	i	Message from the President of CIM
	iii	Message from the President of The Geological Society
I.R. Jonasson	v	Preface
D.G. MacIntyre	1	Geological setting and genesis of sedimentary exhalative barite and barite-sulfide deposits, Gataga district, northeastern British Columbia
R.M. Coveney, Jr., J.B. Murowchick, R.I. Grauch, Chen Nansheng and M.D. Glascock	21	Field relations, origins, and resource implications for platiniferous molybdenum-nickel ores in black shales of South China
Fan Delian, Ye Jie and Lui Tiebing	29	Black shale series-hosted silver-vanadium deposits of the upper Sinian Doushantuo Formation, western Hubei Province, China
L.J. Hulbert, R.C. Carne, D.C. Grégoire and D. Paktunc	39	Sedimentary nickel, zinc and platinum-group-element mineralization in Devonian black shales at the Nick property, Yukon, Canada: A new deposit type
M. Polgári, B. Molák and E. Surová	63	An organic geochemical study to compare Jurassic black shale-hosted manganese carbonate deposits: Urkút, Hungary, and Branisko Mountains, east Slovakia
A.L. Sangster	69	Light stable isotope evidence for a metamorphogenic origin for bedding parallel, gold-bearing veins in Cambrian flysch, Meguma Group, Nova Scotia
J.H. Bernard and K. Žák	81	Stable isotope study of Variscan vein Pb-Zn-Ag mineralization of the Bohemian massif
M. Solomon and C.A. Heinrich	85	Are high-heat-producing granites essential to the origin of giant lead-zinc deposits at Mount Isa and McArthur River, Australia?
	I	Guide for Authors

Exploration and Mining Geology

Volume 1, No. 2, April 1992

Contents

C.R. Van Staal, L.R. Fyffe, J.P. Langton and S.R. McCutcheon	93	The Ordovician Tetagouche Group, Bathurst Camp, Northern New Brunswick, Canada: history, tectonic setting and distribution of massive-sulfide deposits
S.R. McCutcheon	105	Base metal deposits of the Bathurst-Newcastle district: characteristics and depositional models
R.R. Irrinki	121	Key Anacon sulfide deposit, Gloucester County, New Brunswick
A. Hamilton	131	Geology of the Stratmat Boundary and Heath Steele N-5 zones, Bathurst Camp, Northern New Brunswick
M.P. Rennick and D.M. Burton	137	The Murray Brook Deposit, Bathurst Camp, New Brunswick: Geologic setting and recent developments
K.D.A. Whaley	143	The Captain North Extension (CNE) Zn-Pb-Ag deposit, Bathurst District, New Brunswick
R.N. Adair	151	Stratigraphy, structure, and geochemistry of the Halfmile Lake Massive-sulfide deposit, New Brunswick
W.M. Luff, W.D. Goodfellow and S.J. Juras	169	Evidence for a feeder pipe and associated alteration at Brunswick No. 12 massive-sulfide deposit
J.J. Hussey	187	Deep exploration of the "Brunswick Horizon", Bathurst District, Northern New Brunswick
S. Liaghat and W.H. MacLean	197	The Key Tuffite, Matagami mining district: Origin of the tuff components and mass changes
	I	Guide for Authors

Exploration and Mining Geology

Volume 1, No. 3, July 1992

Contents

	iii	The Editors' Page
B.D. Simmons	209	Teck's exploration approach in eastern Canada
T. Birkett, F. Robert, D. Richardson and S. Green	213	Determination of background gold content of non-mineralized outcrops in the Val d'Or area: The effects of sampling
Y. Trudeau and D. Raymond	223	Geology and structure, Orion Mine (No. 8 Zone), Val d'Or district, Quebec
F.T. Manns and E. Ellingham	231	Comparison of ore reserve grades with mill head grades using statistics in two gold mines, Sudbury district, Ontario
C.M. Healey	243	Geology as a risk factor in project evaluation: Its impact on reserve estimation
D.W. Blowes, J.L. Jambor, E.C. Appleyard, E.J. Reardon and J.A. Cherry	251	Temporal observations of the geochemistry and mineralogy of a sulfide-rich mine-tailings impoundment, Heath Steele Mines, New Brunswick
W.D. Sinclair, J.L. Jambor and T.C. Birkett	265	Rare Earths and the potential for rare-earth deposits in Canada
J.F. Allan	283	Geology and mineralization of the Kipawa yttrium-zirconium prospect, Quebec
J.F. Davies, R.E. Whitehead and G.J. Prior	297	Proterozoic disseminated Cu-Mo mineralization in the Archean Superior Province, northeastern Quebec
	I	Guide for Authors

Exploration and Mining Geology

Volume 1, No. 4, October 1992

Contents

	iii	Officers 1992-1993 — The Geological Society of CIM
	v	Referees for Volume 1
I. Nichol, O.P. Lavin, M.B. McClenaghan and C.R. Stanley	305	The optimization of geochemical exploration for gold using glacial till
M.B. McClenaghan	327	Surface till geochemistry and implications for exploration, Black River-Matheson area, northeastern Ontario
J.J. Brummer, D.A. MacFadyen and C.C. Pegg	339	Discovery of kimberlites in the Kirkland Lake area, Northern Ontario, Canada, Part I: Early surveys and surficial geology
J.J. Brummer, D.A. MacFadyen and C.C. Pegg	351	Discovery of kimberlites in the Kirkland Lake area, Northern Ontario, Canada, Part II: Kimberlite discoveries, sampling, diamond content, ages and emplacement
B.H. Scott Smith	371	Contrasting kimberlites and lamproites
A.J.A. Janse	383	The Argyle diamond discovery, Kimberley region, Australia
K. Lehnert-Thiel, R. Loewer, R.G. Orr and P. Robertshaw	391	Diamond-bearing kimberlites in Saskatchewan, Canada: The Fort à la Corne case history
	I	Volume 1 Contents and Author Index
	IX	Guide for Authors